

[General notes]

Read carefully the text of the project and then hand out a short document (max 7 pages of text, figures excluded) **in electronic form** (.pdf format), where the design choices and the analysis of the model are illustrated.

The model must be first designed at a more abstract level, using e.g., notations such as BPMN or EPC and then transformed into workflow net for the analysis. Please explain how the transformation has been obtained.

All the business process diagrams and workflow nets must be submitted in some standard electronic format (.bpmn, .pnml, ...).

When presenting a workflow net, discuss its features (invariants, s-components, free-choice, well-handled, safeness,...) and give an estimate of the size of its reachability graph (how many vertices and nodes).

When workflow modules are involved, check the soundness of each module beforehand, by forgetting about input / output places in its interface.

If it is not possible to design an overall sound process, explain the reason why and discuss relaxed soundness and weak soundness.

Optionally, you can fill the analysis checklist available on the Team channel for every workflow net that is considered.

For any question, please email to bruni@di.unipi.it including the string [MPB] in the subject of the message.

MPB

[P57: Cooking School]

Consider the scenario of a cooking school that must manage student requests. A student contacts the school and receives a list of available courses. The student selects a course and is put in contact with an instructor. The instructor proposes a date and location for the first lesson, and the student can either accept or propose different date and location options. This iteration continues until an appointment is set.

Before each lesson, the student receives a list of ingredients and tools to familiarize themselves with before they are used in the session. During the lesson, the student prepares a series of recipes: the instructor describes the preparation steps, the student begins executing them, and, in case of doubts, asks the instructor for advice. At the end of each session, all dishes are tasted, and the instructor shares her impressions with the student.

After making an electronic payment to the school, the student and the instructor can schedule a new appointment (using the protocol described above), or the student can decide to conclude the course. If the course is completed, the client informs the school, and the process is concluded.

Design appropriate processes that faithfully reflect the scenario described above and ensure compatibility.

Modify the processes so that, at the end of the course, the student can choose to start a new learning path.